SECTION 3. ACCESS TO THE SYSTEM

This section provides step-by-step access procedures system administrators, operators, and users must follow to access either the SARSS-1 or SARSS-2A STAMIS. The material presented is oriented to the first-time and occasional user of the system. The material is presented in adequate detail so that individuals can reliably access the system before they have mastered the details of its functional capabilities. The Solaris 2.x is sometimes referred to as SunOS 5.x; this section will not propagate that terminology.

3.1 First Time Use of the System.

3.1.1 Equipment Familiarization.

3.1.1.1   Overview of the File Server and Workstation. A desktop chassis, monitor, keyboard, printers, and peripherals constitute a file server or a workstation.

a. The two main features of the system are discussed in this paragraph.

(1) *Front Access Control Panel.* This panel features various switches and indicators, which allow the SA and other users to monitor and control the operation of the system.

(2) *Drive Bays.* The drive bays contain the 3-1/2 inch disk drive, an archival storage tape drive, a CD-ROM drive and a PCMCIA drive.

b. The Front Access Control Panel features.

(1) *System Reset Switch.* Depress this switch to perform a system reboot. Do not use this switch while Solaris is running. You must properly shutdown or power down the system.

(2) *System Indicator Lights*. These lights indicate if the system electrical power is on or off and if the hard disk is currently processing information.

(3) *Power Button or Switch*. The power buttons and switches provide power off and on settings for electrical power to the system. There is a specific shutdown sequence required to properly close files and synchronize the hard drive in a Solaris environment. Never simply power off the system until the shutdown script has executed to completion.

(4) *Documentation.* Refer to vender-supplied documentation for complete details of the access control panel or other components and features.

c. Drive bays are located on the front of the system. They are used to hold internal devices.

(1) *3.5 inch Disk Drive.* This is a high-density (1.44MB) 3.5 inch drive.

(2) *CD-ROM Drive.* This is a 32X SCSI CD-ROM drive.

(3) *PCMCIA Drive*. This is a PCMCIA drive.

(4) *Tape Drive.* This is a 4GB DAT Drive.

d. External connections are located on the rear of the system. They are used to attach peripheral devices to your system.

(1) *Electric Power.* An electric power plug is used to connect the main power cable to the chassis.

(2) *Off/On Switch.* This switch provides off and on settings for electrical power to the system. There is a specific shutdown sequence required to properly close files and synchronize the hard drive in a Solaris environment. Never simply power off the system until the shutdown script has executed to completion.

(3) *115v/230v Switch*. Used to switch the unit between 115-volts AC and 230 volts AC power standards.

(4) *Fan*. Opening for air intake by the cooling fan assembly.

(5) *Mouse Port.* The upper port of the KBMPS2 is one of a stack of two mini-DIN PS/2 ports. It is used by any PS/2 pointing device such as a mouse or a trackball.

(6) *Keyboard Port*. The lower port of the KBMPS2 is one of a stack of two mini-DIN PS/2 ports. It is used for a keyboard.

(7) *USB Ports*. USB1 is a stack of two universal serial bus (USB) ports. Some new devices now use the USB interface to take advantage of its faster transmission, and the fact that many devices can be "daisy chained" on a single cable.

(8) *Parallel Port*. LPT1 is a parallel port used by printers or other parallel communications devices. Your system identifies the parallel port as LPT1.

(9) *COM1 Serial Port*. COM1 is a serial port used by your modem.

(10) *COM2 Serial Port.* COM2 is a serial port used by your MROCS Network Controller.

(11) *Monitor Card.* This card has a port for the monitor.

(12) *SCSI Card*. This card has a port for an external SCSI device.

(13) *LAN Card.* This card has ports for network connections.

(14) *Expansion Slots*. These slots are protected with knockout covers. They are used to house other expansion devices.

e. The system comes with a color monitor. This monitor and the keyboard constitute the operator's console.

f. The system comes with an enhanced 104-key Windows95 keyboard with a built-in trackball. The keys are separated into six categories:

(1) *Key Pad*. The keypad contains 104 keys.

(2) *Numeric Keypad*. This group of keys emulates the standard 17-key adding machine layout with arrow keys and alternate cursor control functionality when used in shifted mode.

(3) *Cursor-Control Keys*. Arranged in a standard inverted T formation, these keys control the positioning of the cursor similar to a mouse in applications that perform in full screen or windowed mode. The four directional arrow keys in this group move the cursor left, right, up and down.

(4) *MS-DOS Level Keys*. The three keys in this group are used alone or in combination with other keys to perform a variety of functions, such as Print Screen, System Request, Break, Scroll Lock, and Pause.

(5) *Function Keys*. This group contains the function keys <F1> through <F12>.

(6) *Hot-Key Combinations*. In addition to the individual key's performance, two or more keys pressed simultaneously or in an exact sequence are used to produce specific results. This is referred to as hot key combinations.

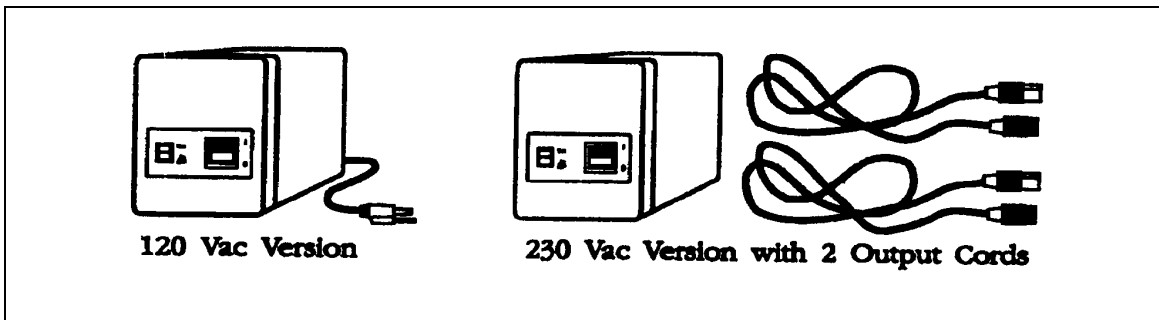g. The Uninterruptible Power Source (UPS) is illustrated in figure 3-1.

Figure 3-1. Uninterruptible Power Source (UPS).

(1) The UPS protects computer and peripheral devices from power failures, which could result in the loss or corruption of valuable data.

(2) The UPS provides visual and audible indicators, which alert you to utility power failures, utility-wiring errors, over-loads and low battery capacity conditions.

h. An outlet strip with built-in surge suppression such as that illustrated in figure 3-2 is used to connect the various components of the file server or remote workstations.
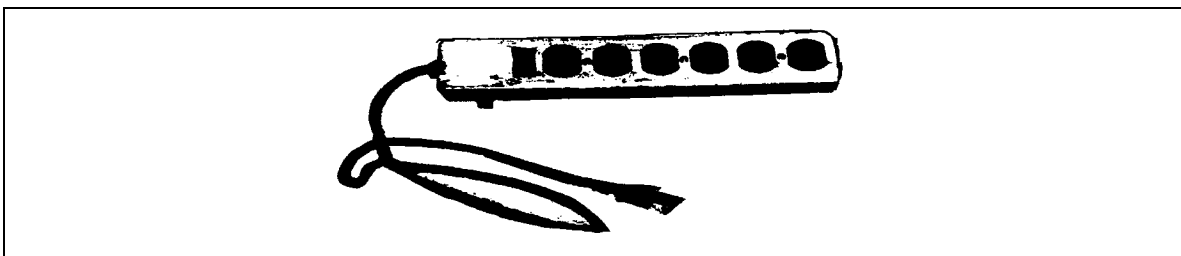

Figure 3-2. Outlet Strip with Surge Suppression.

(1) "Raw" electric power cables are never attached to your computer. Electric power disturbances can upset the smooth operation of a computer system. These disturbances go by many names - sags, surges, spikes, and blackouts. Unreliable power can destroy data, increase down time, and magnify service costs.

(2) A surge suppresser acts as a "shock absorber" by limiting potentially damaging electrical transients and spikes, which cause computer disruption and hardware failure. For these reasons, a surge suppresser (110/230V) is used for the SARSS file server as well as the remote workstations.

i. The printers fielded with the SARSS platforms are discussed below.

(1) The Fujitsu DL 1200 and 6400, Lowry 4120, Lexmark 2300-Series and Optra Laser, Intermec 4100 and 4400, Brother HL-1660 Laser, HP LaserJet 5, and Mannesmann-Tally MT-645 printers have been chosen to work with the SARSS system.

(2) The default system printer for SARSS-2A is the high speed MT-6xx. Several considerations should be made when locating and setting up printers.

(a) Choose each printer location free of dirt and heavy dust. Avoid temperature and humidity extremes. The power source should also be adequate for printer operation and protected from power surges.

(b) Keep the operating environment temperature between 50 and 104 degrees Fahrenheit.

(c) Do not locate your printer in an area where temperature changes abruptly; i.e., air conditioners, open windows or heaters.

(d) Plug your printer into a grounded (3-prong) outlet.

(e) Minimum floor space recommended for the printer is 36" wide and 36" deep to allow air movement around the printer.

3.1.1.2 Setting up the File Server and Workstations. The information that is provided in this subparagraph provides a guide to setting up the hardware components of the system. However, the complete details of the vendor-supplied hardware documentation should be reviewed prior to setting up any piece of hardware. These documents, provided by the manufacturer, contain up-to-the-minute changes and addenda that may change in response to minor feature changes or lessons-learned fed back to the manufacturer by users in the field. In general, though, the setup of the master workstation is straightforward in nature as described in the steps outlined below. To unpack hardware:

a. Unpack the chassis.

    b. Place all the cables and power cords on the table.

    c. Unpack the UPS from the box.

    d. Place all the cables and power cords on the table.

    e. Unpack the monitor and keyboard from the box.

    f. Place all the cables and power cords on the table.

    g. Unpack the printer.

3.1.1.3 Cable the Hardware. The following steps outline the procedures for cabling the master workstation hardware components. Again, consult the vendor-supplied documentation for any last minute changes to the procedures for each piece of hardware involved.

    a. Connect the UPS with the system.

       (1) Insert the power cord from the UPS into a grounded wall outlet or surge suppresser.

       (2) Insert one end of the computer's main power cord into the AC power connector at the back of the system, and plug the other end into the back of the UPS.

       (3) A system that doesn't have UPS will be connected directly into the surge suppresser.

    b. Connect the monitor cable into the video port on the back of the computer.

    c. Connect the keyboard connector into the keyboard port on the back of the computer.

    d. Remove any shipping devices from the drives. (Save the shipping devices in case you decide to ship the system to another area or the field later.)

       WARNING: Do not allow electric power to the system.

    e. Plug one end of the electric power cord into the electric power plug on the back of monitor.

f. Plug the other end of the electric power cord into a UPS or surge suppresser.

g. Connect the appropriate printer cable to the serial or parallel ports on the back of the computer.

h. Plug the power cord into a surge suppresser.

i. Connect the printer cable to the printer.

j. Perform a power on procedure.

3.1.1.4 Connect the Lowry Printer.

a. The Model 4120 Lowry printer rear view consists of:

(1) An 8-position function switch.

(2) DB25 Interface Connector.

(3) Accessory Jack (7-pin Din).

(4) Power Connector.

(5) Fuse Holder.

(6) Power Switch.

b. Locate and identify the coiled DB25M/DB25M cable.

c. Connect one end of the DB25M cable to the Lowry printer.

d. Connect the other end of the DB25M to the DB25F/DB9F gender changer.

e. Connect the DB9F end of the gender changer into the COM2 serial port on the workstation.

f. Connect the power cord to an appropriate outlet.

g. Set the COM2 port settings on the workstation to 9600 Baud, 8 data bits, Parity None, 1 stop bit, and "XON-XOFF" flow control. The default settings for the COM2 se-

rial port on the workstation are: 9600 Baud, 7 data bits, parity even, 1 stop bit, and "XON-XOFF" flow control. To change the port settings use the following steps:

   (1) Click on the "START" button.

   (2) Select "Settings".

   (3) Select "Control Panel".

   (4) Select "Ports".

   (5) Highlight "COM2" and click "Settings"

   (6) Change the number of "data bits" to "8".

   (7) Change the parity to "None".

   (8) Click "OK" after verifying or changing settings as needed

   (9) Click "Close" on the Ports screen.

   (10) Close the "Control Panel"

   h. The default settings for BIN0X (where X is the remote number) queue in RPM is to "Pass data directly to the printer raw" and "Generic text on COM2". To verify the RPM settings use the following steps:

   (1) Click on the "RPM" icon on the task bar.

   (2) Double-click on the BIN0X line in the Queue Status window.

   (3) Verify the settings in the Edit Queue window are set to Pass data directly to the printer raw" and "Generic text on COM2".

   (4) Click "OK".

   i. Minimize the RPM Queue Status window

   j. Insure that Lowery is selected in "SPA" on the SARSS-1 Server.

3.1.1.5 ZEBRA Z4000 Printer.

    a. The Model Z4000 Zebra printer rear view consists of:

        (1) DB25 Interface Connector.

        (2) Power Connector.

        (3) Power Switch.

        (4) Bi-directional parallel interface, compliant with IEEE I284 standard.

    b. Connect one end of the 1284 parallel cable to the Zebra printer.

    c. Connect the other end of the 1284 parallel cable to the parallel port on the work-station.

    d. Connect the power cord to an appropriate outlet.

    e. Insure that Zebra is selected in "SPA" on the SARSS-1 Server.

    f. For paper and ribbon loading instructions, see the Zebra Z Series User's Guide.

3.1.1.6 Mannesmann-Tally MT-645 Line Printer. The Mannesmann_Tally MT-645 is supported only on the SARSS-2AD system. The printer is connected to the parallel port on the back of the SARSS-2AD Server. This subparagraph discusses the steps necessary to set up the printer, install accessories, and operate the controls on the MT-645 line printer.

    a. *Setting Up the Printer*.

        (1) There are several shipping clamps, brackets, and retaining tabs that must be removed before operating the printer. Although these are identified below, be sure to thoroughly review and adhere to the specific steps for setting up the printer as defined in the Mannesman Talley documentation.

(2) First, insert the tip of the removal tool into the control panel slot as illustrated in figure 3-3.
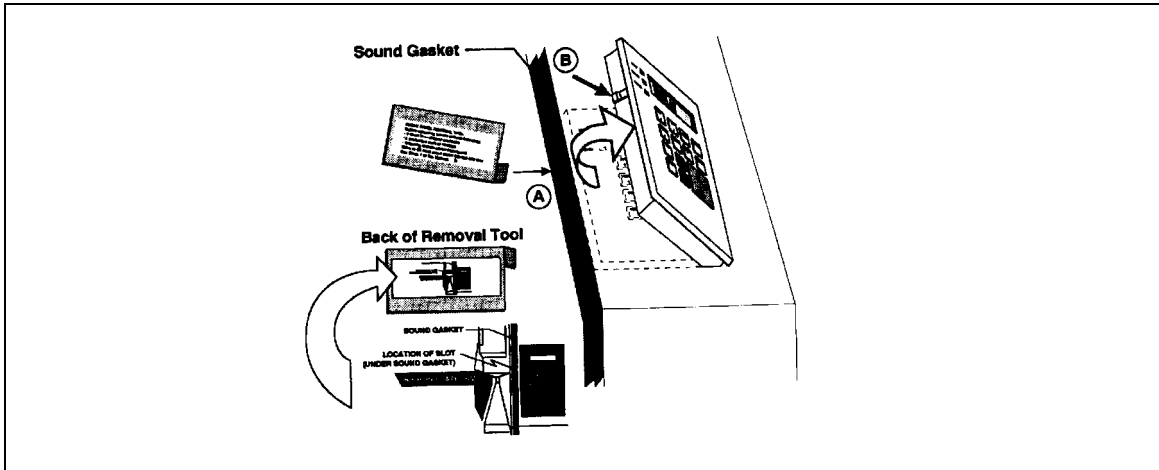
Figure 3-3. Control Panel Removal.

(3) After the control panel is removed, the screws holding the shuttle retaining tabs must be removed. These are identified in figure 3-4.
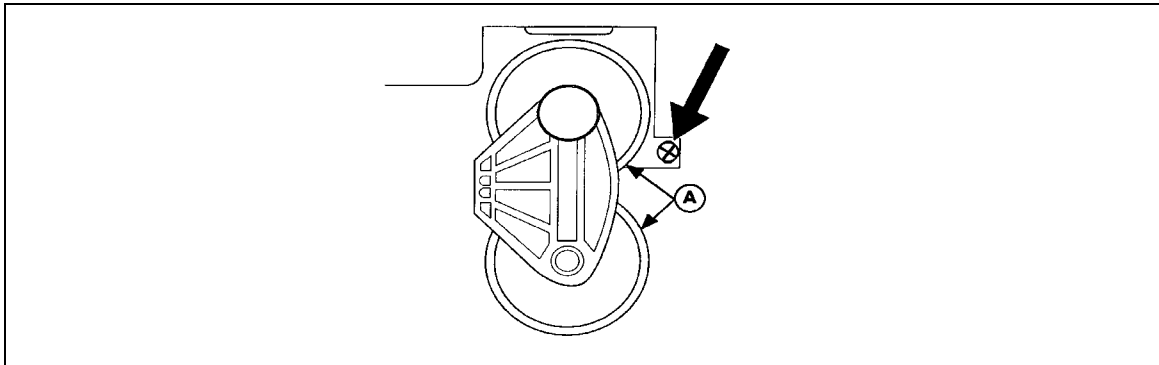

Figure 3- 4. Shuttle Retaining Screw Removal.

(4) After the retaining screws are removed, remove the bracket clamp, then the shipping pads and other vibration dampers as identified in the hardware documentation.

b. *Installing the Printer Ribbon.*

(1) Open the printer lid and raise the form thickness lever to the full-open position.

(2) Locate the ribbon as shown in figure 3-5. Remove slack in the ribbon by turning the knob on the ribbon cartridge clockwise, and then slip the ribbon between the two ribbon guides and the ribbon shield on the printer.
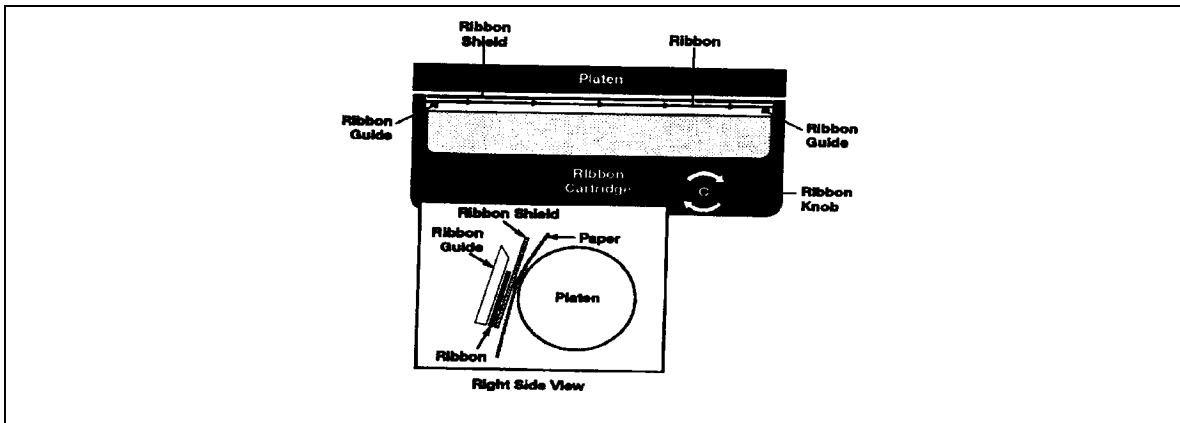
Figure 3-5. Ribbon and Platen Assembly.

(3) Press down lightly on the ribbon cartridge while turning the ribbon knob clockwise until it sets on the cartridge post. Make sure that the ink-ribbon does not twist or fold over.

(4) Lower the form thickness lever.

c. *Loading Printer Paper.* Load printer paper in accordance with the instructions in the vendor-provided documentation. To do this you must be familiar with the paper transportation system (figure 3-6) and the paper feed path in figures 3-7 and 3-8.
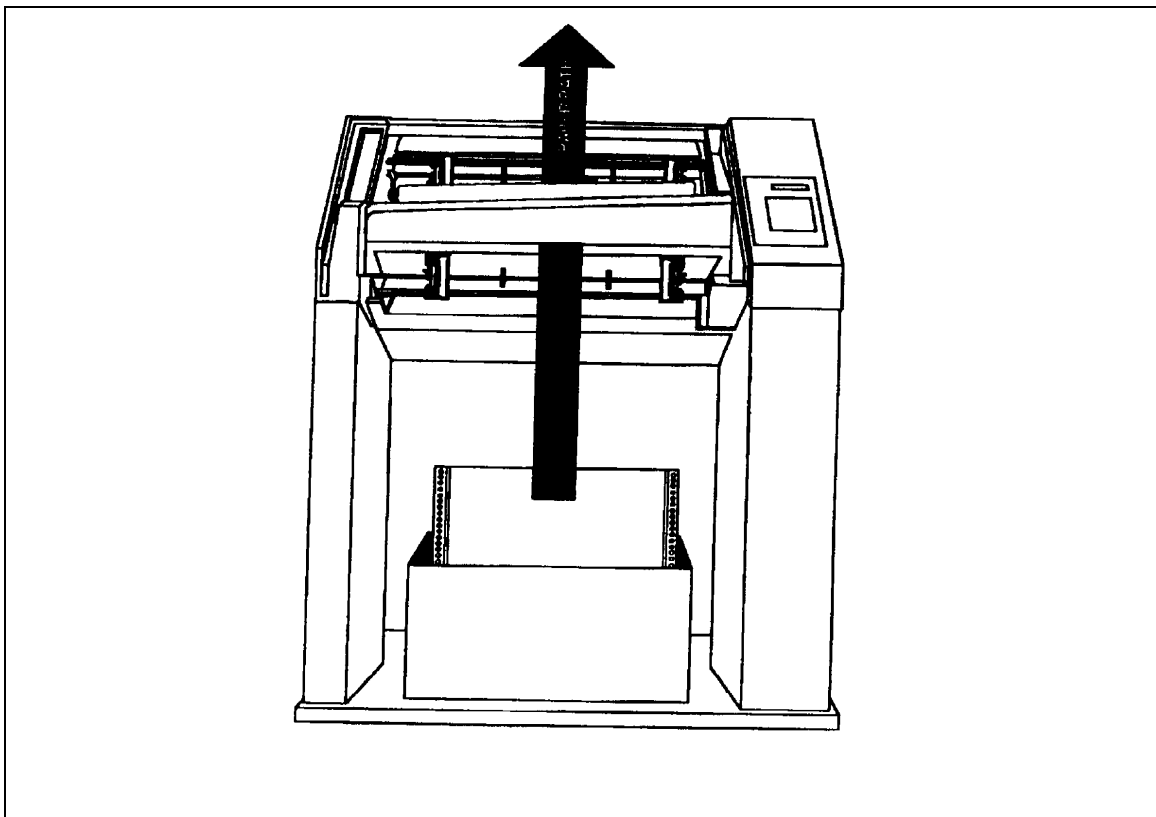
Figure 3-6. Load Path for Paper Installation.
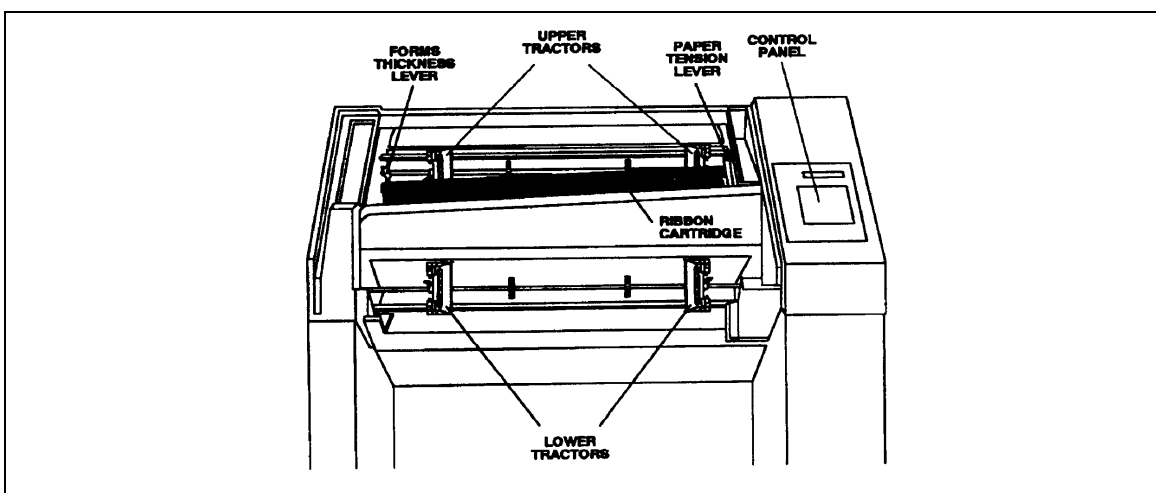
Figure 3-7. Ribbon and Platen Assembly.
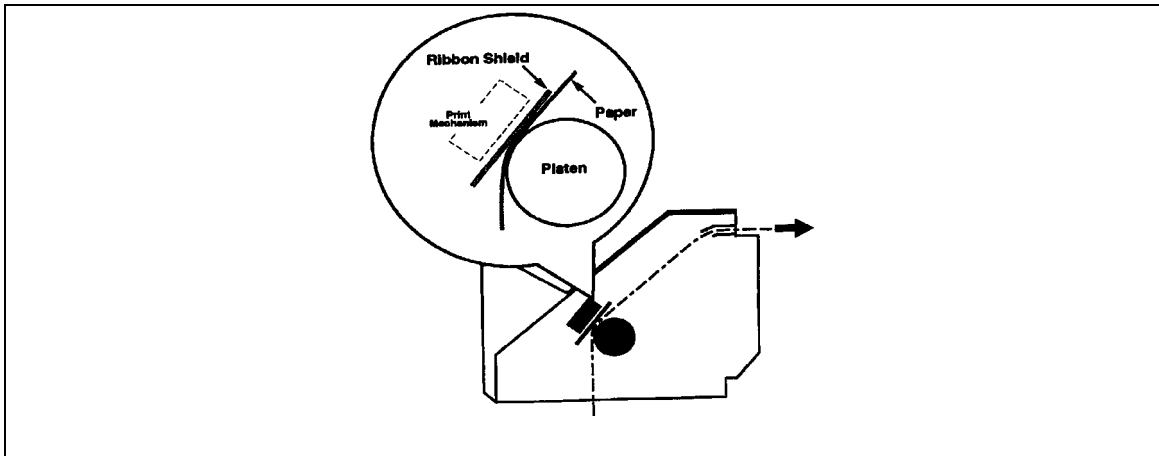
Figure 3-8. Detailed View of Paper Path.

(1) *Paper System Components*. As shown in figure 3-7, the tractor sets, form thickness lever, paper tension lever, and ink-ribbon cartridge are all parts of the paper system. The first three assemblies are involved in how the paper moves past the print mechanism and through the printer. Proper adjustment of these components is necessary for efficient paper movement and optimum print quality.

(a) *Tractor Sets*. Your printer has four tractors, two above and two below the printer area, that control the speed and direction of the paper. The pins in each tractor fit through the holes along the edges of the paper, and a spring-loaded door holds the paper down so that the pins and paper holes mesh as the paper passes through the tractor. A locking lever keeps the tractor locked in place on the horizontal shaft. See figure 3-9.
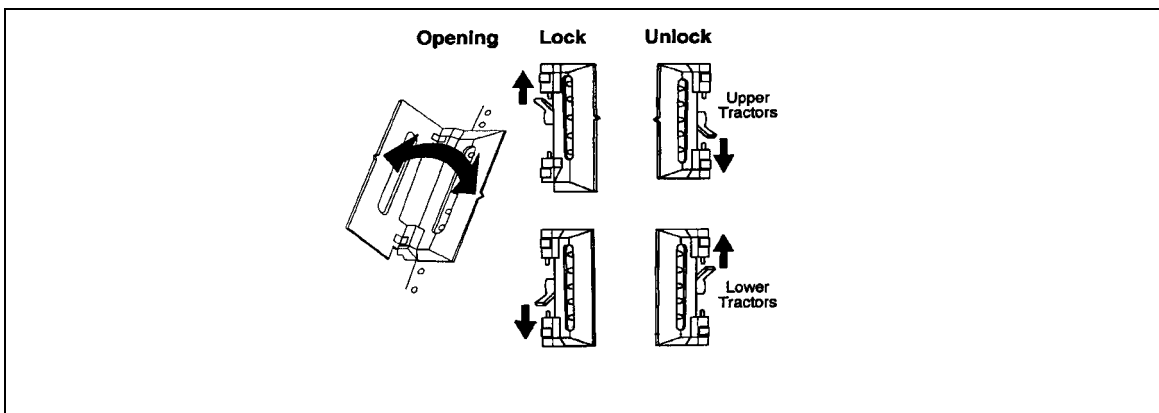
Figure 3-9. Opening, Locking, and Unlocking Tractors.

(b) *Form Thickness Lever*. Raising and lowering the form thickness lever opens and closes the platen gap, which allows the printer to accept different thicknesses of paper. Raise the lever for heavy or multi-part forms and lower the lever for thin or single-part forms. The scale to the left of the lever indicates relative thickness only. It does not represent the actual number of forms and should be used as a guide only. Paper tension can affect your print quality. Use the tension levers shown in figure 3-10 to adjust the levers for the thickness of the forms being used. Before loading paper or the ink ribbon cartridge, the form thickness lever should be in the full open position. Once the paper has been loaded, be sure to lower the form thickness lever to the appropriate position.
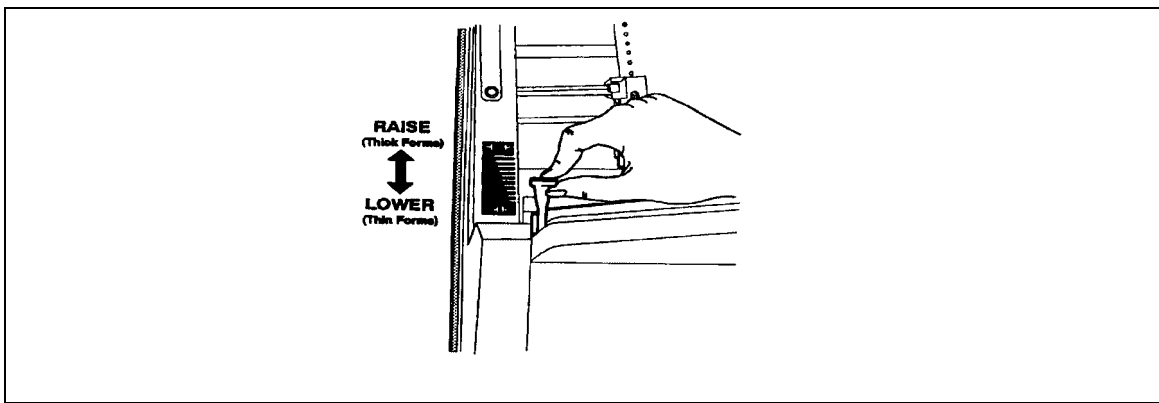
Figure 3-10. Form Thickness Lever.

(c) *Paper Tension Lever*. The paper tension lever shown in figure 3-11 must also be adjusted. If the paper tension is too loose, the dot-columns and dot-rows will not line up. If the paper tension is too tight, the paper holes will start elongating vertically and may tear. Adjust the lever until the print looks crisp, the dot-columns and dot-rows are perfectly aligned, and the paper holes are not torn or elongated. Raising or lowering the paper tension lever while running a print test is one method that can be used to obtain optimum print quality. This lever adjusts the vertical paper tension between the upper and lower sets of tractors. Use the column alignment scale in figure 3-12 to assist in the proper setting of the paper based on the column guide numbers.
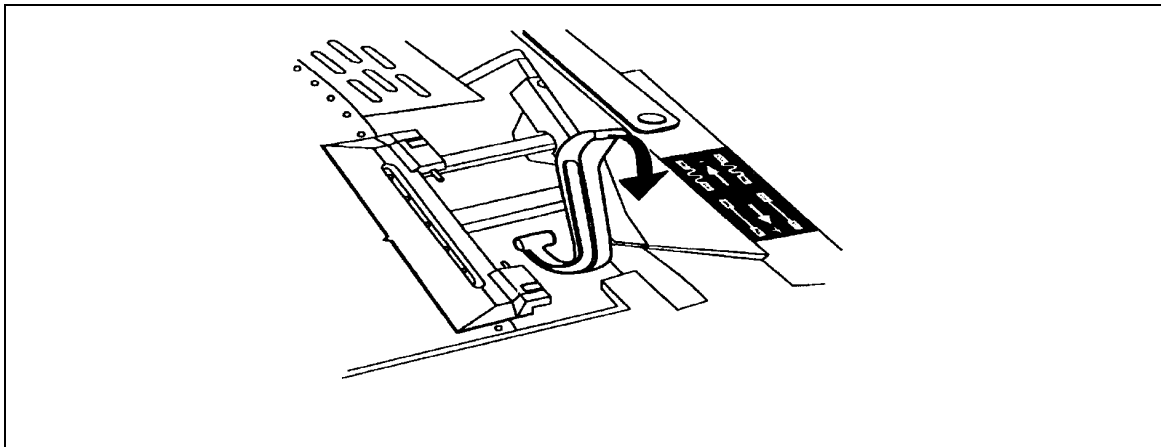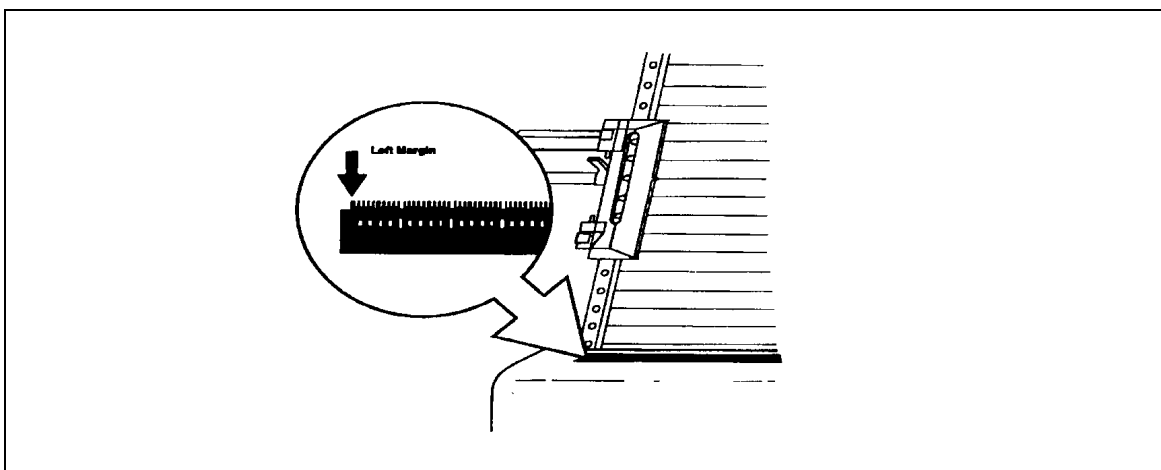
Figure 3-11. Paper Tension Lever.

Figure 3-12. Column Alignment Scale.

(2) *Control Panel*. The control panel shown in figure 3-13 is located in the lower right corner of the printer's top cover. It may be used to program and direct most printer functions. This panel contains three indicators, a 16-character display, and 11 control keys.
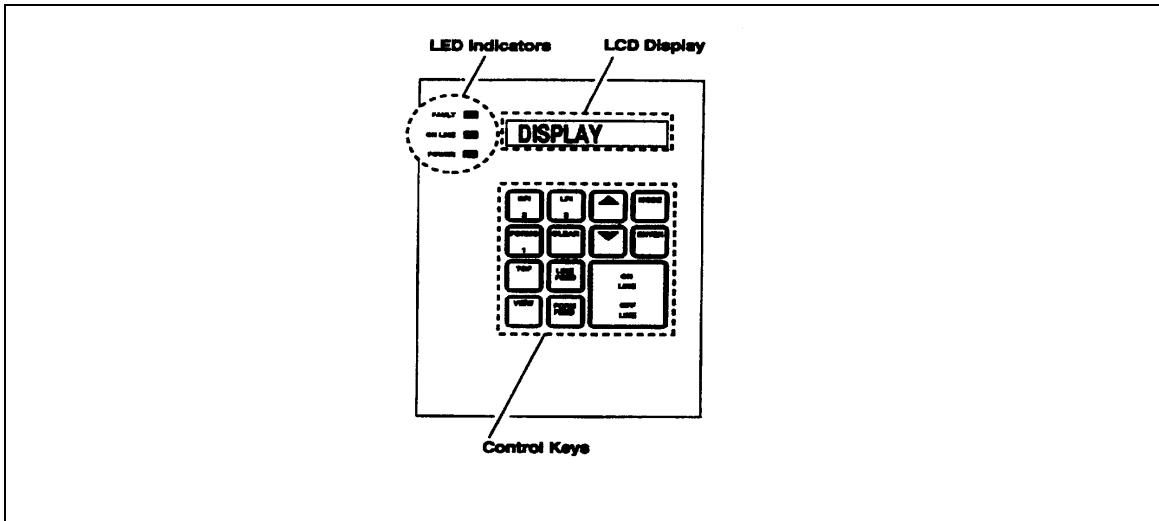

Figure 3-13. Printer Control Panel.

(a) The three indicators located to the left of the display show basic printer status:

1 Fault - The red Fault indicator is illuminated whenever an error or fault is detected.

2 Online - The yellow Online indicator is illuminated when the printer is ready to accept data.

3 Power - The green Power indicator is illuminated when the power switch is on.

(b) The control keys are as follows:

1 Online/Offline - Pressing these keys will place the printer online and offline.

       <u>2</u> Form Feed - Pressing this key will advance the paper to the top of the next form.

       <u>3</u> Line Feed - Pressing this key will advance the paper one line at a time. Holding this key down will advance the paper multiple lines.

       <u>4</u> Up/Down Arrow Keys - Pressing these keys will advance the paper up or down in small increments.

       <u>5</u> TOF - This key is used to set the top-of-form location and is functional only when the printer is offline.

       <u>6</u> View - To view the last printed line, depress and hold this key down.

       <u>7</u> Mode - This key is functional when the printer is offline; depressing this key allows you access to the multi-level menus used to format print operations.

       <u>8</u> Enter - This key is functional when the printer is offline; depressing this key allows you:

         o Quick Access Mode for form removal.

         o Menu Mode selection of parameter values.

         o Paper Out Mode to print the rest of the current form.

       <u>9</u> CPI 2 - These keys are used to access Form LPI 3 Length, Characters Per Inch, Lines Per Forms 1 Inch values.

       <u>10</u> Clear - This key is functional in the offline condition. The function of this key depends on whether you are making selection in one of the menus, a fault condition exists, or you wish to enter the menu for clear selections.

       <u>11</u> Menus - Depressing this key will give access to parameter values for formatting documents, controlling print operations, or testing the printer.

3.1.1.7 <u>Fujitsu DL 1200 Printer</u>. The Fujitsu DL 1200 printer is connected to the parallel port on the back of SARSS workstation or Server. Insure that the Fujitsu DL 1200 is set in "SPA" on the SARSS-1 Server. This subparagraph discusses the steps necessary to set up the printer, install accessories, and operate the controls on the DL1200 printer.

a. *Unpack Fujitsu Printer*.

(1) Open the box and remove the printer and its components.

(2) Examine each item for damage.

(3) Place the printer where you plan to use it.

(4) Remove the tape securing the top and front covers of the printer.

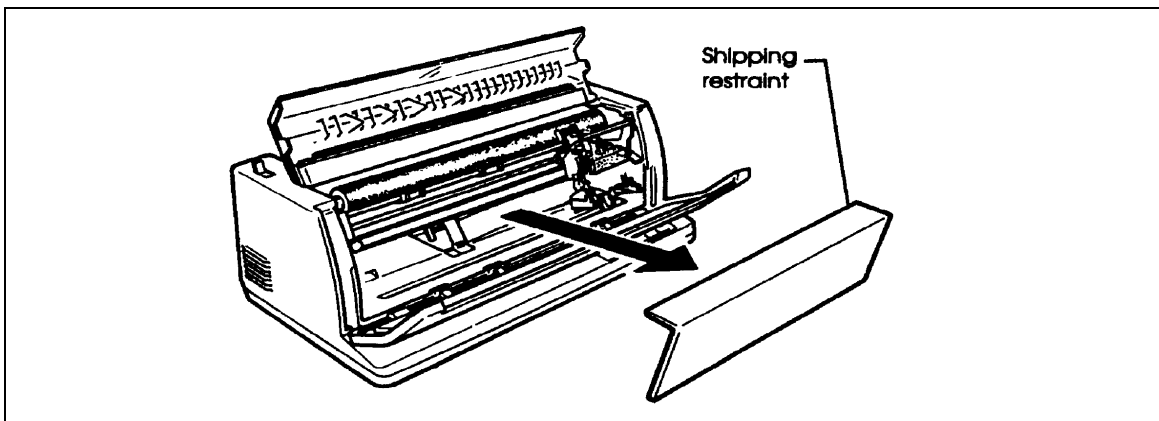(5) Open the covers and remove the cardboard shipping restraint as shown in figure 3-14.

Figure 3-14. Removing the Shipping Restraint.

b. *Setup the Printer.*

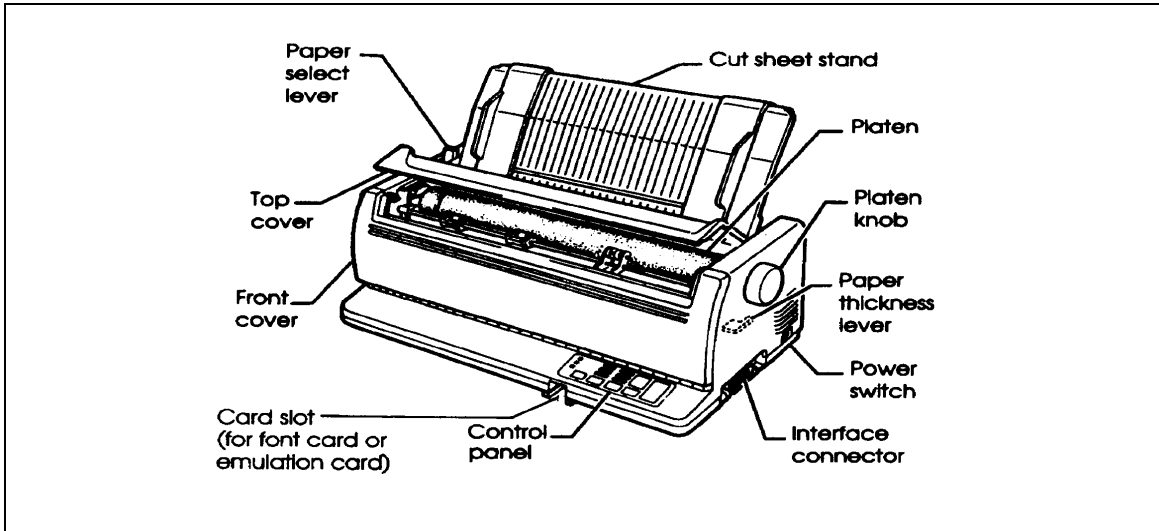   (1) An overview of the printer is shown in figure 3-15.

Figure 3-15. Front and Side View of Printer.

    (2) Install the Platen Knob on the right side of the printer as depicted in figure 3-16.
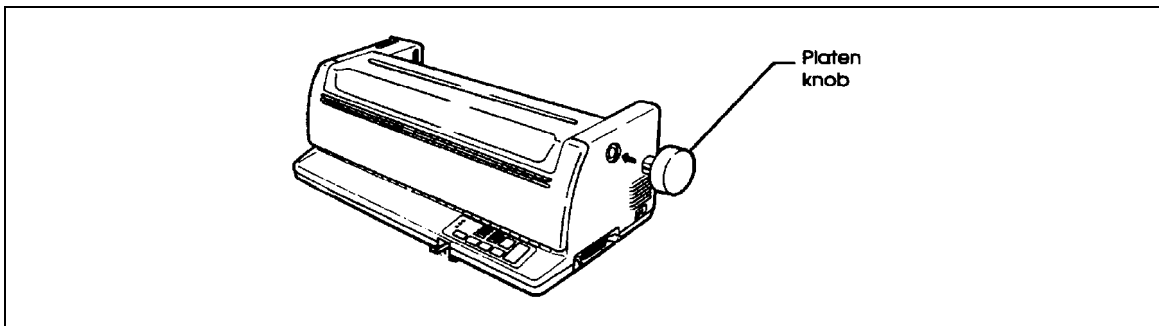
Figure 3-16. Installing the Platen Knob.

(3) Install the cut sheet stand to allow smooth feeding of both single sheets and continuous forms. The mounting pins and grooves are shown in figure 3-17.
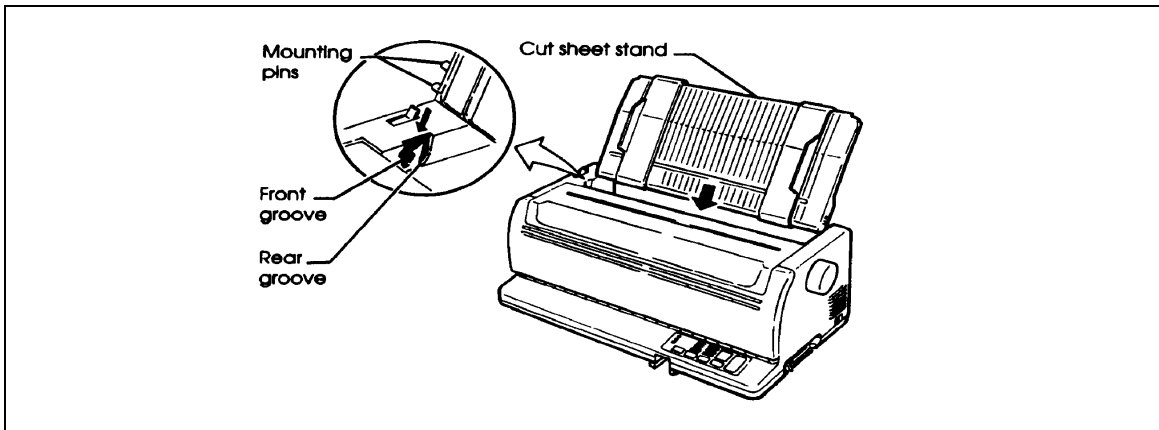

Figure 3-17. Installing the Cut Sheet Stand.

(a) Locate the two grooved notches on top of the printer and behind the top cover.

(b) Locate the two mounting pins on each side of the cut sheet stand.

(c) Tilt the cut sheet stand at an angle over the top of the printer. Slide the cut sheet stand's mounting pins into the long, front grooves of the notches. This is the cut sheet stand's up position, used for printing on single sheets. To rotate the cut sheet stand down, grasp it by the sides and lift up until the two upper mounting pins fall into the rear grooves of the notches. This is the position used for printing on most continuous forms paper.

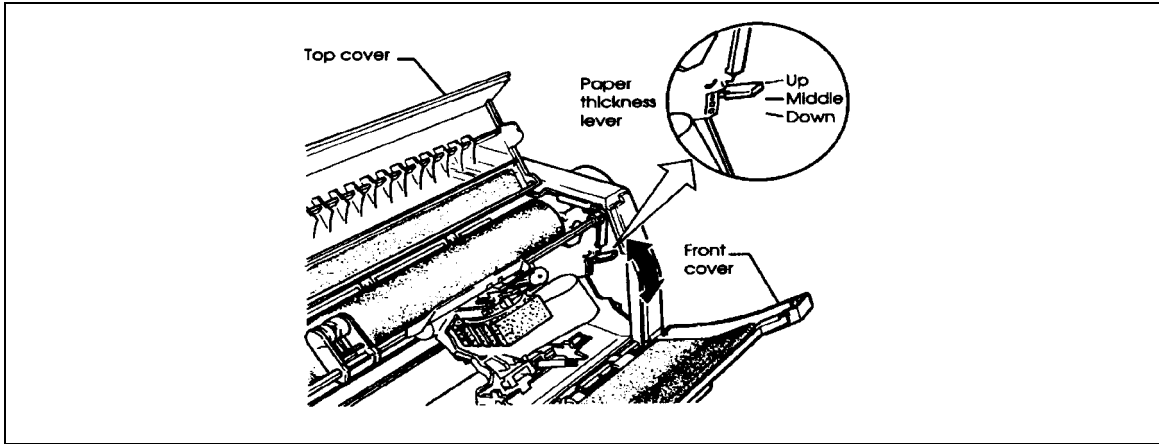(4) Install the ribbon cartridge following the diagram provided in figure 3-18.

Figure 3-18. Preparing to Install the Ribbon.

(a) Open the top and front covers of the printer.

(b) Move the paper thickness lever to the down position.

(c) Remove the ribbon cartridge from the package; familiarize yourself with the features of the ribbon cartridge as shown in figure 3-19.
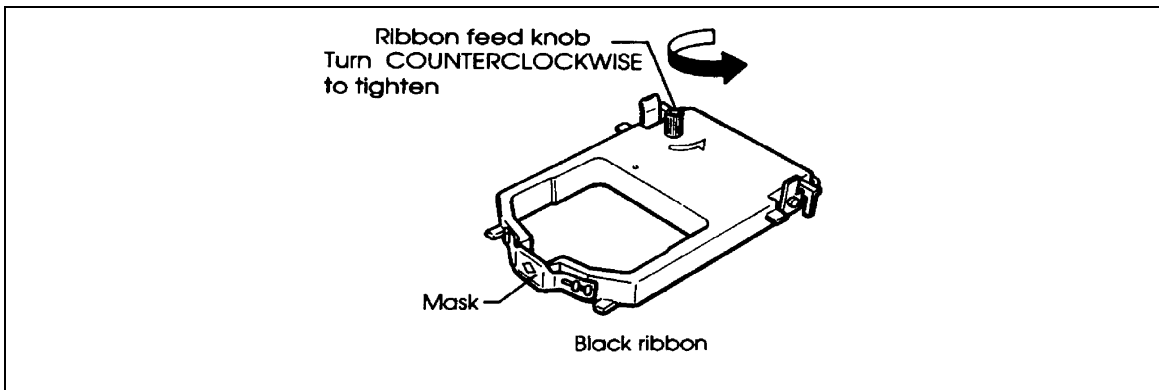

Figure 3-19. Preparing the Ribbon Cartridge.

(d)   Locate the two ribbon release levers shown in figure 3-20; place the mounting pins into the ribbon support studs inside the printer.
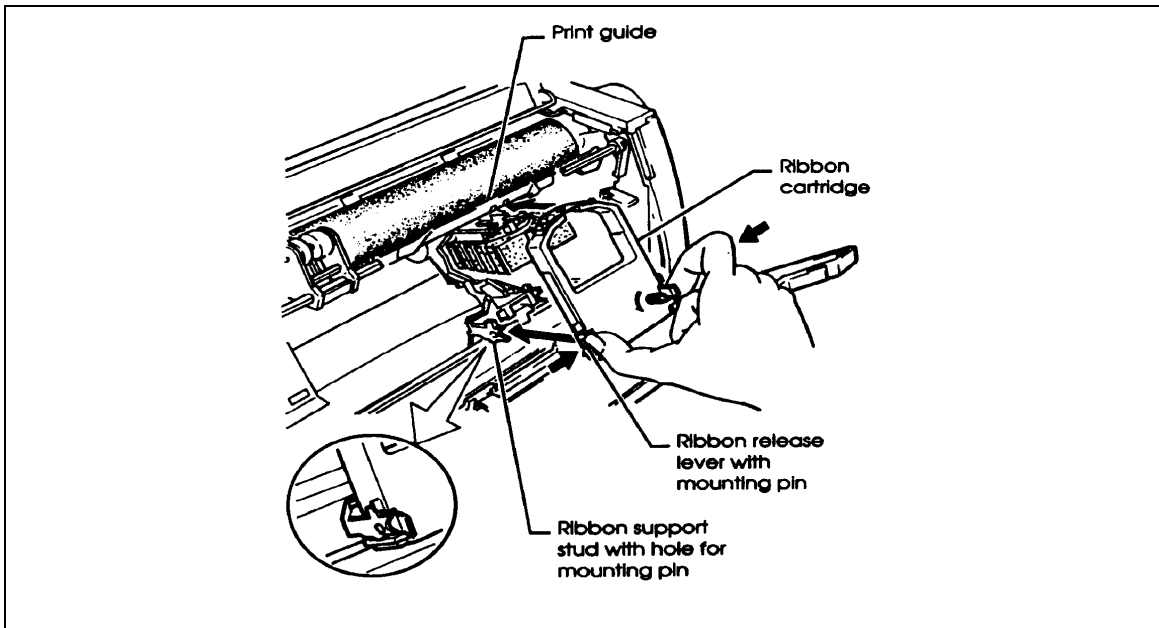

Figure 3-20. Installing the Ribbon Cartridge.

(e) Rotate the cartridge so that the ribbon falls between the nose of the printer head and the plastic print guide.

(f)   Press in the ribbon release levers until the mounting pins snap into the holes on the ribbon support studs. Gently pull on the cartridge to verify that the pins are securely installed in the holes.

(g) Turn the ribbon feed knob counterclockwise to tighten the ribbon.

(h) Move the paper thickness lever (inside the right side of the printer) back to the up position. This is the correct setting for most single sheet printing.

(i) Close the front and top covers of the printer.

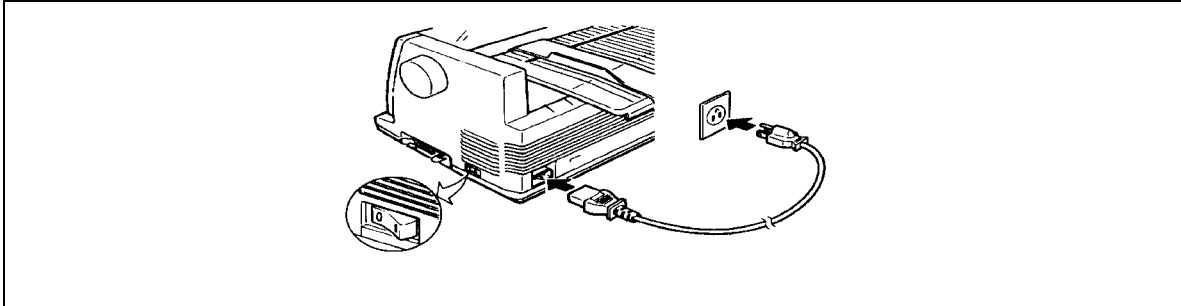(5) Plug the power cord into the printer as depicted in figure 3-21.

Figure 3-21. Connecting the Power Cord.

WARNING: Make sure the printer power is off. Make sure you have the power cord shipped with the printer. This cord is designed to minimize radio frequency interference.

(a) Plug one end of the power cord into the power connector at the right rear of the printer.

(b) Plug the other end of the power cord into your power outlet.

(c) Make sure the power cord is securely connected.

(d) Turn on the power to the printer.

NOTE: If the printer beeps and the "Paper Out" indicator turns red, it indicates that the paper select lever is set to the forward (continuous forms) position but no form papers are loaded. When you move the paper select lever to the rear (single sheet) position, "Paper Out" will turn off.

(6) To load printer paper perform the following:

(a) Move the paper thickness lever (inside the right side of the printer) to the up position.

(b) Set the paper select lever (on the top left side of the printer) to the rear.

(c) Raise the cut sheet stand.

(d) Move the left paper guide all the way to the right.

(e) Insert a piece of paper into the cut sheet stand.

CAUTION: Printing on the platen will damage the platen and print head.

(f) Adjust the right paper guide so that the paper lies flat on the cut sheet stand.

(g) Press the load/unload button. The paper will be loaded to the top-of-form position.

(7) To perform a printer self-test do the following:

(a) Turn off the printer.

(b) While pressing the FF (form feed) button, turn the printer back on. Continue pressing FF until printer beeps. Self-test printing will start.

(c) Let it print for about 15 seconds, then press the LF (line feed) or mode button. Manually turn the platen knob clockwise to remove the test page.

NOTE: Do not try to use the FF button to eject the paper. In self-test mode, FF cannot be used to feed paper forward.

(d) Press online to exit the self-test mode. The printer will return online.

(8) To connect the printer cable perform the following:

(a) Turn off both the printer and the computer.

(b) Connect the interface cable to the parallel or serial interface connector on the right side of the printer. These two options are illustrated in figure 3-22.
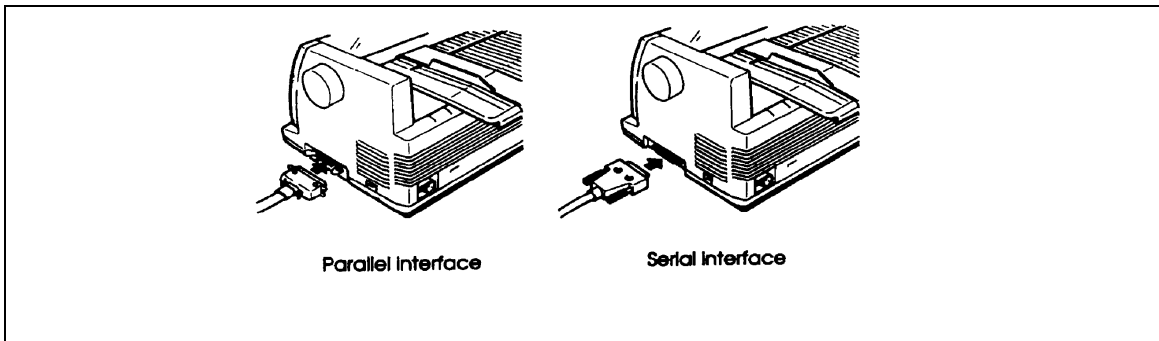

Figure 3-22. Connecting the Interface Cable.

(c) Connect the other end of the cable to your computer, do not over tighten. Gently pull the cable to verify that it is secure.

3.1.1.8 Lexmark 2380 Printer. The Lexmark 2380 printer is connected to the parallel port of either the workstation or the SARSS Server. The default printer mode is to emulate a standard IBM PC printer. The printer settings are made utilizing the front control panel on the printer. Insure that the Lexmark printer has been set in "SPA" on the SARSS-1 Server.

a. Set the printer emulation mode to IBM using the following steps:

(1) Press the "ALT" and "SETUP" buttons on the front panel, the Main Menu will print with instructions on how to set various options.

(2) Press the "MICRO ↓" to select emulation options, the emulation options menu will be printed.

(3) Press the "FONT" button to select IBM or press "MACRO" to return to the main menu.

(4) Press "MACRO" to return to the main menu.

(5) Press "START/STOP" to save setup and exit. The printer will go back online.

b. To view the current settings for the printer use the following steps:

(1) Press the "ALT" and "SETUP" buttons on the front panel, the Main Menu will be printed.

(2) Press the "FONT" button, the current printer options will be printed.

(3) Press "START/STOP" to exit. The printer will go back online.

Refer to the Lexmark User's Manual for additional instructions and information.

3.1.1.9 Intermec 4100 Printer. The factory default communications protocol of the Intermec 4100 must be changed at time of installation. This section details the required configuration and setup.

a. The Intermec 4100 communications protocol is governed by two eight-bit DIP switches on the back panel of the unit. The factory-default setting for these switches must changed as follows:

(1) Switch I (top bank): No change from factory default SW1-1 should be on and all the others off. This sets the device for 9600-E-1 -7, no stripping.

(2) Switch 2 (bottom bank): Set SW2-1 ON, and leave the others OFF (i.e., at their factory default settings). This sets the device flow-control protocol to XON/XOFF. Change per the above while power to printer is off, or cycle the printer power after the change, so that the change takes effect.

b. Connect the DB25 to DB9 cable labeled "048693 Rev D" to the printer and to the COM2 serial port on the workstation.

c. The default settings for the COM2 serial port on the workstation are: 9600 Baud, 7 data bits, parity even, 1 stop bit, and "XON-XOFF" flow control. To display the port settings use the following steps:

(1) Click on the "START" button.

(2) Select "Settings".

(3) Select "Control Panel".

(4) Select "Ports".

(5) Highlight "COM2" and click "Settings"

(6) Click "OK" after verifying or changing settings as needed

(7) Click "Close" on the Ports screen.

(8) Close the "Control Panel"

    d. The default settings for BIN0X (where X is the remote number) queue in RPM is to "Pass data directly to the printer raw" and "Generic text on COM2". To verify the RPM settings use the following steps:

(1) Click on the "RPM" icon on the task bar.

(2) Double-click on the BIN0X line in the Queue Status window.

(3) Verify the settings in the Edit Queue window are set to Pass data directly to the printer raw" and "Generic text on COM2".

(4) Click "OK".

(5) Minimize the RPM Queue Status window.

    e. Insure that Intermec is selected in "SPA" on the SARSS-1 Tower.

    f. Refer to the *Intermec 4100 User's Manual* for additional instructions or information.

3.1.1.10 Intermec 4400 Printer. The Intermec 4400 communications protocols are set to the same values as for the 4100. Only the method differs. Instead of using DIP switches, the 4400 has a small LCD screen and a menuing system for setting printer attributes. Refer to the Intermec 4400 manual for details on using the menuing interface. This section details the required configuration and setup.

    a. Reset the Intermec 4400 printer to factory defaults:

(1) With the printer power on, press the "ONLINE OFFLINE" button until "OFFLINE READY" appears.

(2) Press the "MENU" button.

(3) Press the "UP or DOWN ARROW" until "SERVICE MENU" appears, then press "SELECT".

(4) Press the "UP or DOWN ARROW" until "MEMORY RESET" appears, then press "SELECT".

(5) Press the "UP or DOWN ARROW" until "ALL" appears, then press "ENTER".

(6) "MEMORY RESET COMPLETE" will appear.

(7) Press the "ONLINE OFFLINE" button until "ONLINE READY" appears. (Ribbon will roll out. Don't worry about it. When you finish you will powerdown and up and the ribbon will "suck" up.)

b. Set the ribbon sensitivity:

(1) Locate the sensitivity number on the ribbon (i.e. 567).

(2) With the printer power on, press the "ONLINE OFFLINE" button until "OFFLINE READY" appears.

(3) Press the "MENU" button.

(4) Press the "UP or DOWN ARROW" until "OPERATOR MENU" appears, then press "SELECT".

(5) Press the "UP or DOWN ARROW" until "SENSITIVITY" appears, then press "SELECT".

(6) Press the "UP or DOWN ARROW" until the first number appears (i.e. 5**), then press "SELECT".

(7) Press the "UP or DOWN ARROW" until the second number appears (i.e. 56*), then press "SELECT".

(8) Press the "UP or DOWN ARROW" until the third number appears (i.e. 567), then press "ENTER".

(9) Press the "ONLINE OFFLINE" button until "ONLINE READY" appears.

    c. Set the media type to thermal transfer:

(1) With the printer power on, press the "ONLINE OFFLINE" button until "OFFLINE READY" appears.

(2) Press the "MENU" button.

(3) Press the "UP or DOWN ARROW" until "CONFIGURATION" appears, then press "SELECT".

(4) Press the "UP or DOWN ARROW" until "LABEL" appears, then press "SELECT".

(5) Press the "UP or DOWN ARROW" until "MEDIA TYPE" appears, then press "SELECT".

(6) Press the "UP or DOWN ARROW" until "THERMAL TRANSFER" appears, then press "ENTER".

(7) Press the "ONLINE OFFLINE" button until "ONLINE READY" appears.

    d. Set the communications protocol to XON/XOFF:

(1) With the printer power on, press the "ONLINE OFFLINE" button until "OFFLINE READY" appears.

(2) Press the "MENU" button.

(3) Press the "UP or DOWN ARROW" until "INSTALL MENU" appears, then press "SELECT".

(4) Press the "UP or DOWN ARROW" until "MAIN PORT" appears, then press "SELECT".

(5) Press the "UP or DOWN ARROW" until "PROTOCOL" appears, then press "SELECT".

(6) Press the "UP or DOWN ARROW" until "XON/XOFF NO STAT" appears, then press "ENTER".

(7) Press the "ONLINE OFFLINE" button until "ONLINE READY" appears.

e. Next, set the paper stock for MRO or bin labels.

(1) Press the "OFFLINE" button. Press MENU button one time.

(2) Press the "UP ARROW" or "DOWN ARROW" until "CONFIGURATION' appears in the display window, then press the "SELECT" button.

(3) Press the "UP ARROW" or "DOWN ARROW" until "LABEL" appears, then press the "SELECT" button.

(4) Press the "UP ARROW" or "DOWN ARROW" until "LABEL WIDTH" appears, then press the "SELECT" button.

(5) If you are printing Bin Labels press the "DOWN ARROW" until "3.00 INCHES" appears, then press the "ENTER" button.

(6) If you are print MRO's press the "DOWN ARROW" until "4.40 INCHES" appears, then press the "ENTER" button.

(7) Press the "ONLINE" button.

(8) Finally turn the printer off, then turn it back on, the ribbon will roll back up in the printer and the printer will run a DRAM test and go online.

f. Connect the DB25 to DB9 cable labeled "048693 Rev D" to the printer and to the COM2 serial port on the workstation.

g. The default settings for the COM2 serial port on the workstation are: 9600 Baud, 7 data bits, parity even, 1 stop bit, and "XON-XOFF" flow control. To display the port settings use the following steps:

(1) Click on the "START" button.

(2) Select "Settings".

    (3) Select "Control Panel".

    (4) Select "Ports".

    (5) Highlight "COM2" and click "Settings"

    (6) Click "OK" after verifying or changing settings as needed

    (7) Click "Close" on the Ports screen.

    (8) Close the "Control Panel"

  h. The default settings for BIN0X (where X is the remote number) queue in RPM is to "Pass data directly to the printer raw" and "Generic text on COM2". To verify the RPM settings use the following steps:

    (1) Click on the "RPM" icon on the task bar.

    (2) Double-click on the BIN0X line in the Queue Status window.

    (3) Verify the settings in the Edit Queue window are set to Pass data directly to the printer raw" and "Generic text on COM2".

    (4) Click "OK".

    (5) Minimize the RPM Queue Status window.

  i. Insure that Intermec is selected in "SPA" on the SARSS-1 Tower.

  j. Refer to the *Intermec 4400 User's Manual* for additional instructions or information.

3.1.1.11 Brother HL-1660 Laser Printer. The factory default settings of the Brother HL-1660 Laser Printer, must be changed at the time of installation. Follow the 'a.' steps below when unpacking the Brother printer, making sure that step 'b.' is the final step. This will ensure that the printer is set up properly for Solaris type text files. The printer is connected to the parallel port and requires an "EPP Bi-directional" parallel printer cable, for connection to the SARSS file server or workstations. Be sure to set the Brother HL-1660 Laser Printer in "SPA" on the SARSS-1 Server. If a laser printer is attached to the server, see paragraph 3.1.1.17 for specific setup instructions.

a. *Unpack Brother Printer.*

　(1) Open the box and remove the printer and its components.
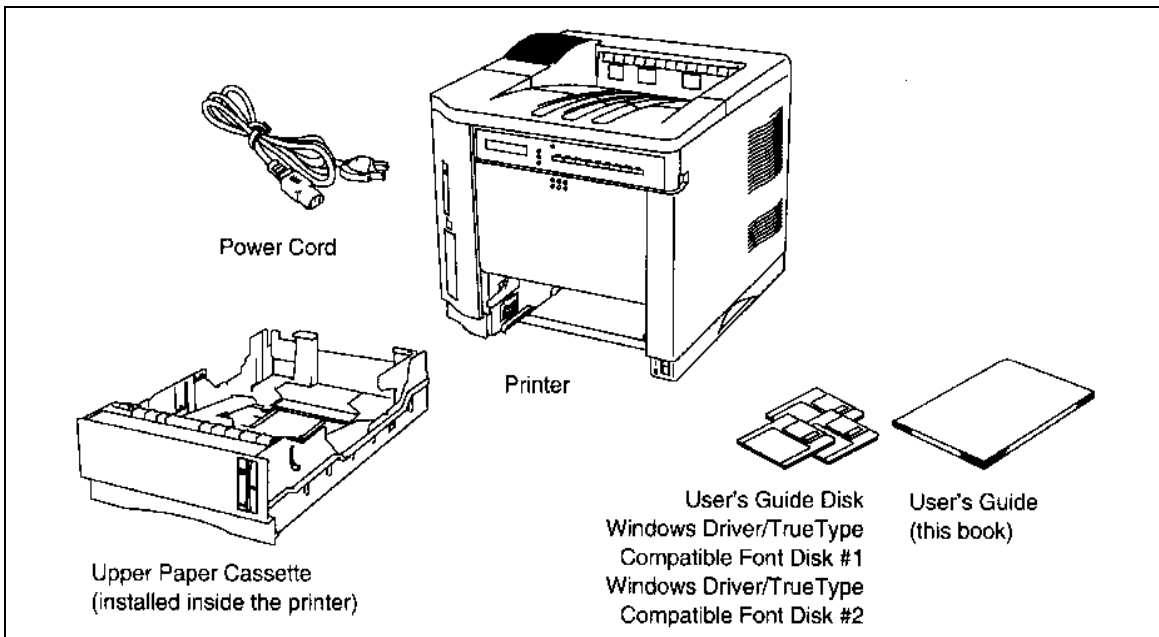
　(2) Examine each item for damage (figure 3-23).

Figure 3-23. Brother HL-1600 Laser Printer Components.

　(3) Place the printer in a temporary location, where you can easily reach all sides.

　(4) Open and close the top cover.

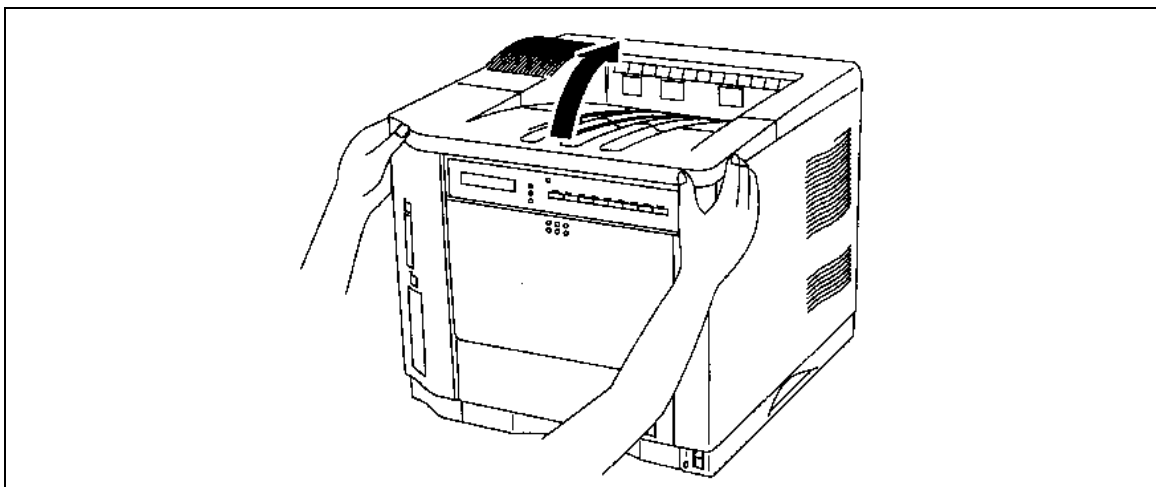(a) To open the printer (figure 3-24), hold both sides of the top cover and raise it upwards until it latches.

Figure 3-24. Opening the Brother Printer.

(b) To close the printer (figure 3-25), lower the top cover and push both sides gently, until it latches.
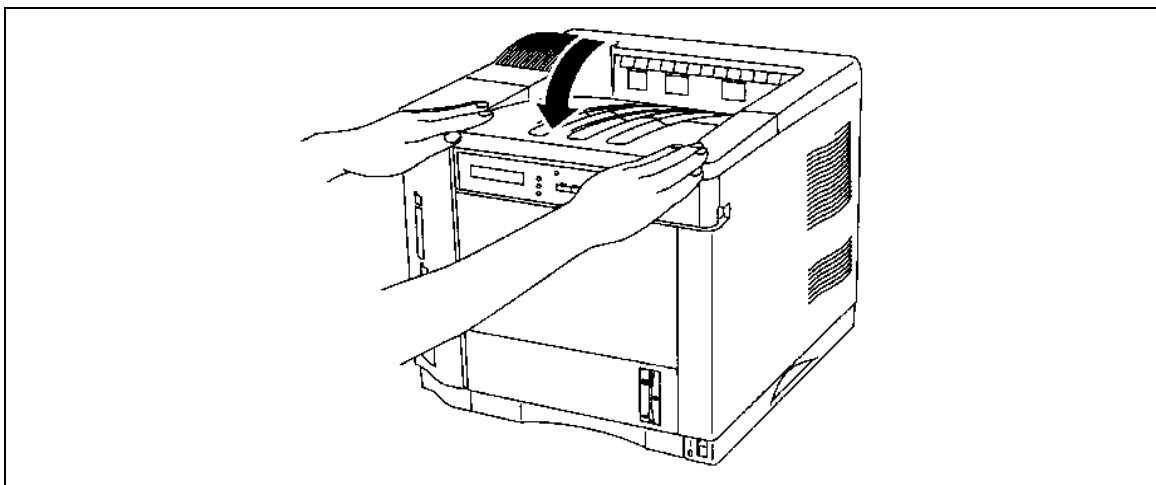
Figure 3-25. Closing the Brother Printer.

(5) Remove the protective parts.

(a) Open the top cover and the upper paper cassette.

(b) Remove the protective parts from inside the printer and the cassette, reference figure 3-26.
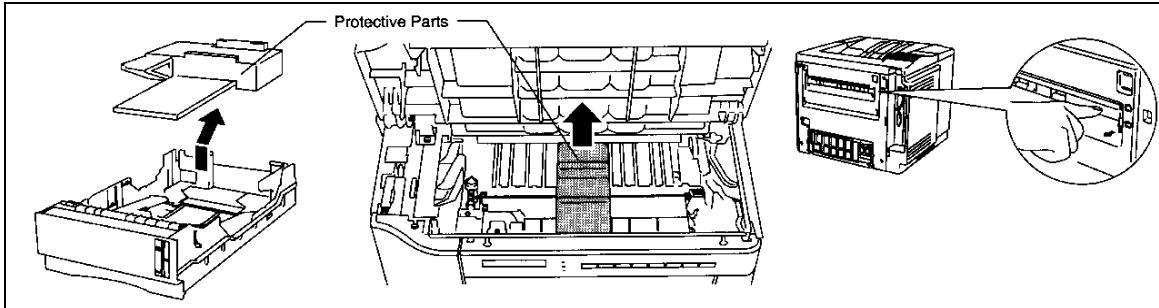
Figure 3-26. Remove Protective Parts.

(c) Remove both spaces from the fixing roller, reference figure 3-27.
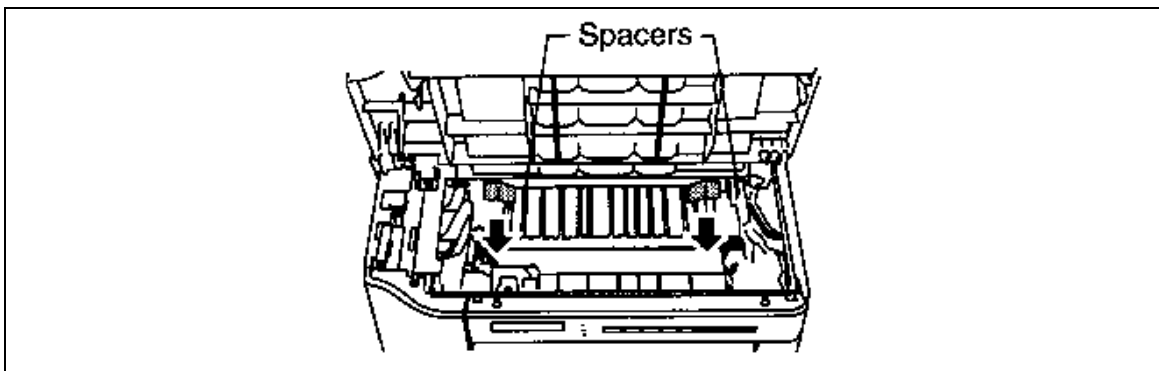
Figure 3-27. Remove the Spacers.

(6) Install the Toner Cartridge.

(a) Open the top cover of the printer.

(b) Open the bag to unpack the toner cartridge, refer to figure 3-28 for cautions concerning handling of the toner cartridge.
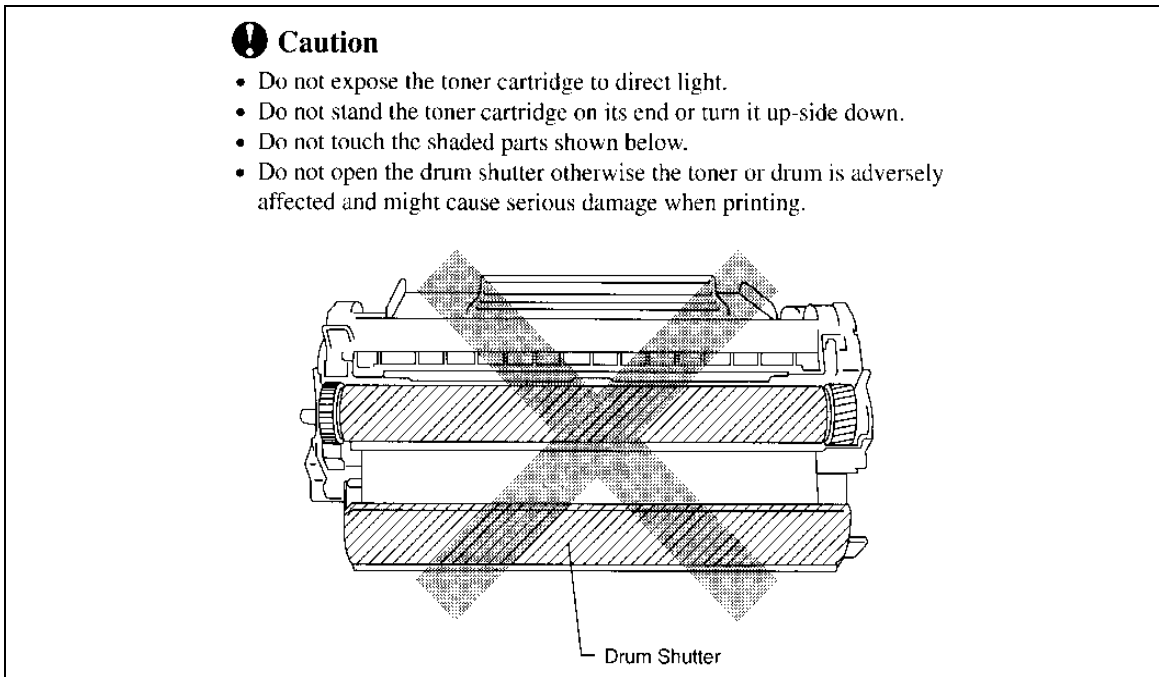
Figure 3-28. Toner Cartridge Cautions.

(c) Hold the toner cartridge with both hands. Rock it gently several times at a 45° angle. This distributes the toner evenly inside the cartridge, refer to figure 3-29.
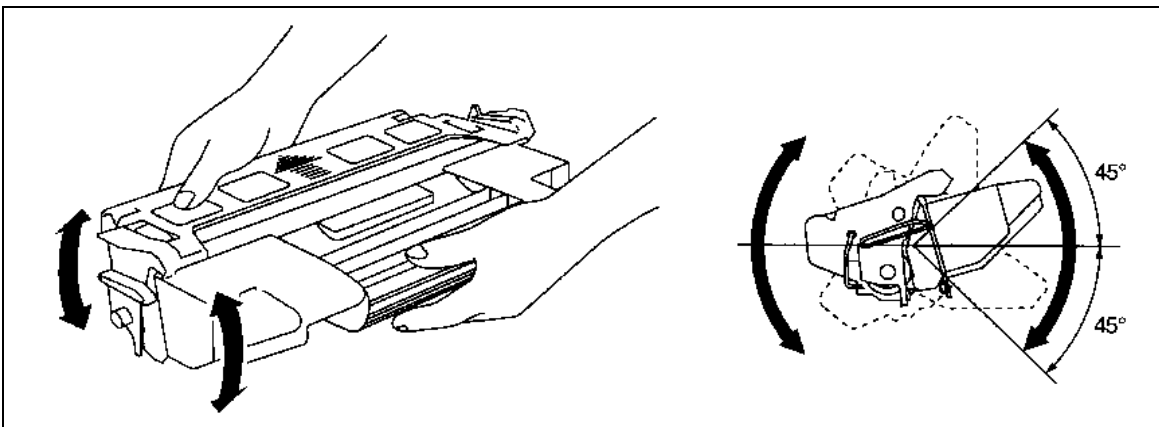
Figure 3-29. Rock the Toner Cartridge.

(d) Bend the tab up and down several times until it is detached from the toner cartridge.

(e) Hold the tab firmly and pull it out until the sealing tape comes out all the way, refer to figure 3-30.
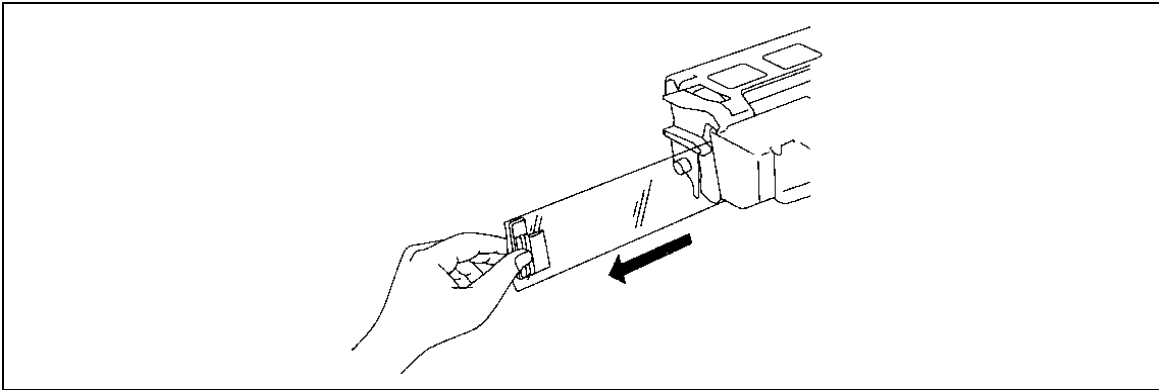
Figure 3-30. Remove the Sealing Tape.

(f) Insert the toner cartridge in the direction of the arrows, engraved on the cartridge, into the side guides until it stops inside the printer, refer to figure 3-31.
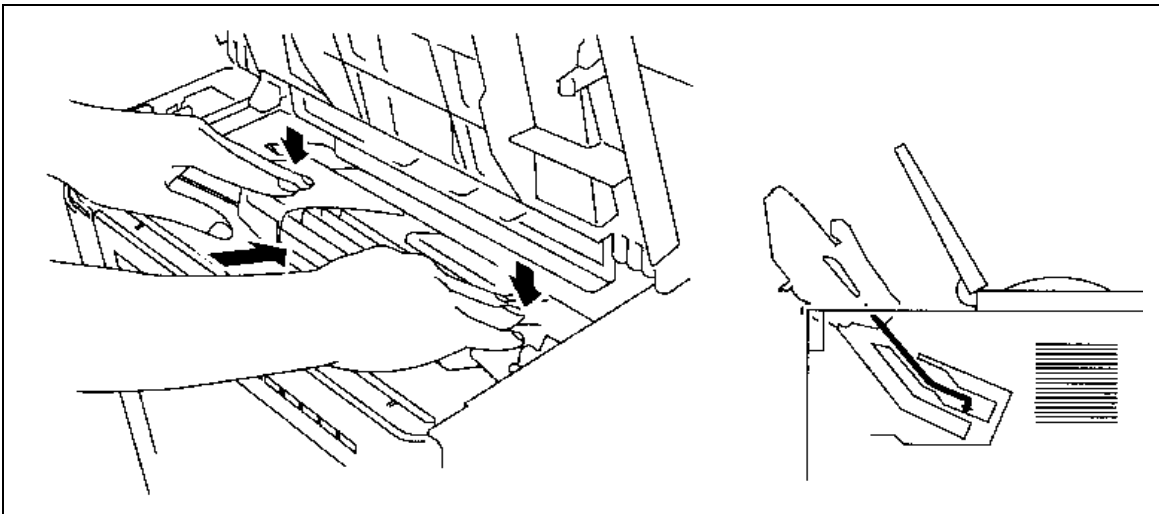

Figure 3-31. Insert the Toner Cartridge.

(g) Close the top cover of the printer.

(7) Place the printer where you plan to use it.

b. *Change Factory Default Settings*.

(1) To ensure that the printer is set up properly for SARSS applications, the printer EMULATION must be changed to 'HP LaserJet 4+'. Follow the steps below to change the EMULATION setting:

(a) Press <u>SEL</u> to take the printer off line ('ONLINE' light will go out).

(b) Hold down the <u>SHIFT</u> switch and press the <u>Emulation</u> switch. The current emulation will be displayed with an asterisk.

(c) Press the ⋏ or ⋎ switch until 'HP LaserJet 4+' is displayed.

(d) Press the <u>Set</u> switch to activate 'HP LaserJet 4+' EMULATION. An asterisk will appear at that selection.

(e) The printer will automatically exit to the Off Line state. Press <u>SEL</u> to return the printer On Line.

(2) To ensure that the printer is set up properly for Solaris, type text files. You must change the 'Format Mode' -> Auto CR to the ON position. Follow the following steps, to change the AUTO CR setting:

(a) Press <u>SEL</u> to take the printer Off Line.

(b) Press <u>MODE</u> until FORMAT MODE is displayed.

(c) Press <u>SET</u> until the AUTO CR option is displayed <u>and the cursor is blinking on the OFF option</u>. (If ON* is already displayed, go to step (e).)

(d) Press the <u>TEST</u> button until the display reads AUTO CR=ON.

(e) Press the <u>SET</u> button to accept the ON option (an * should appear next to the 'ON' to verify that the option has been selected).

(f) Press the <u>SEL.</u> button to put the printer back On Line.

3.1.1.12 Fujitsu DL 6400 Printer. The factory default settings of the Fujitsu DL 6400 Printer, must be changed at the time of installation. Follow the 'a.' steps when unpacking the Fujitsu printer, making sure that step 'b.' is the final step. This will ensure that the printer is set up properly for Solaris type text files. The printer is connected to the parallel port and requires an "EPP Bi-directional" parallel printer cable, for connection to the SARSS file server or workstations. Insure that Fujitsu DL 6400 is set in "SPA" on the SARSS-1 server.

    a. *Unpack Fujitsu Printer.*

       (1) Open the box and remove the printer and its components.

       (2) Verify that each item has been received (figure 3-32) and check each item for damage.
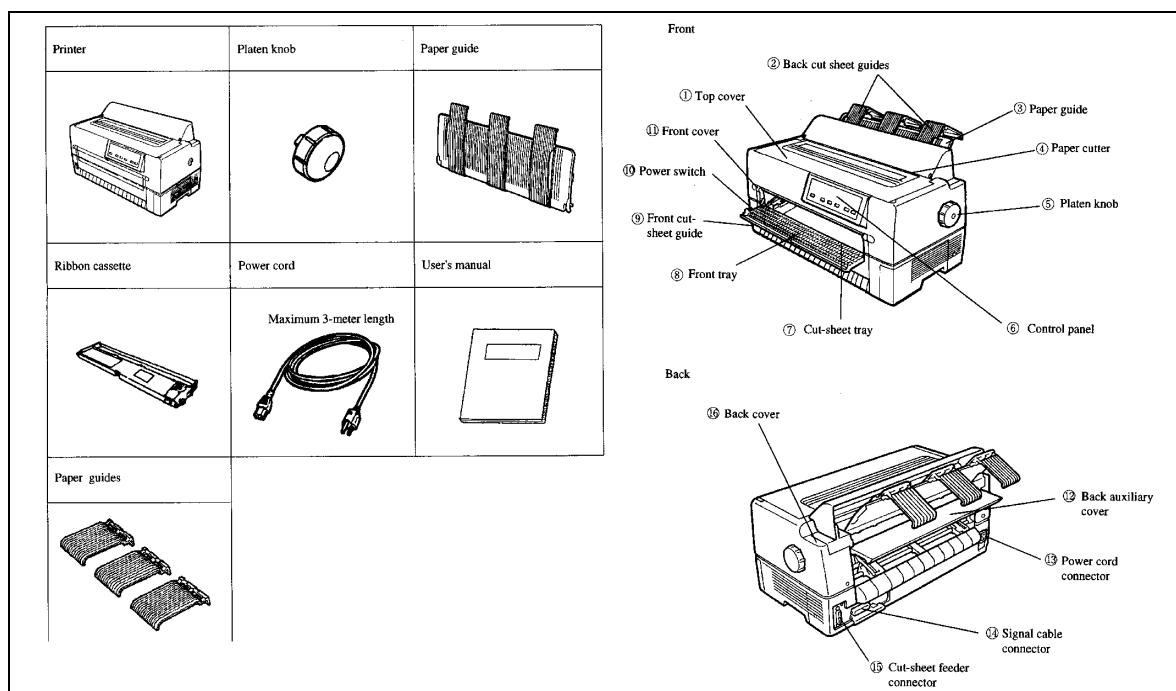
Figure 3-32. Fujitsu Printer Components.

       (3) Place the printer where you plan to use it.

       (4) Remove the tape securing the top and front covers of the printer.

   (5) Remove the shipping restraints:

        (a) Open the top cover and lift out the stopper as shown by the arrows in figure 3-33 below.
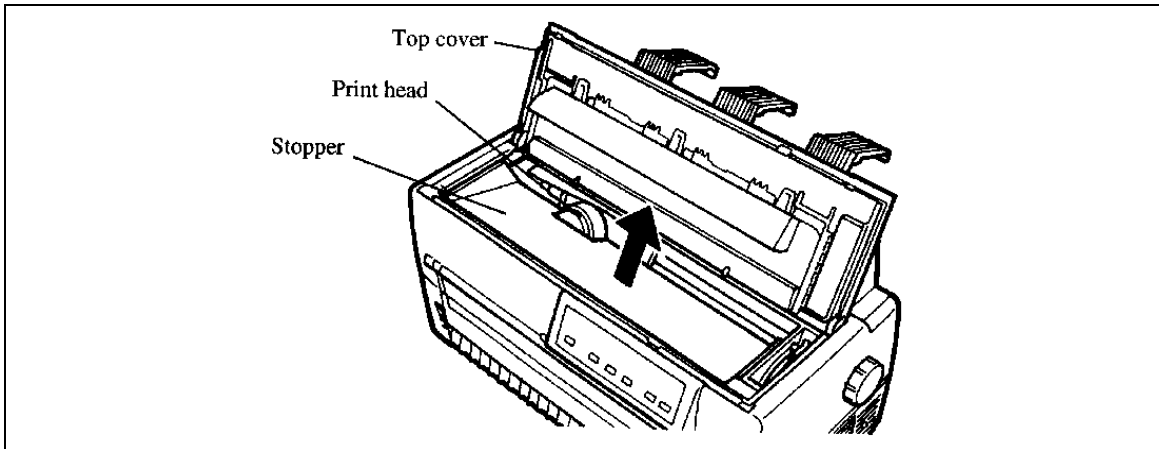

Figure 3-33. Remove the Stopper.

        (b) Open the front cover and cut-sheet tray, remove the cushion from between the tractor shafts, and check that the jam removal lever is locked, as shown in figure 3-34.
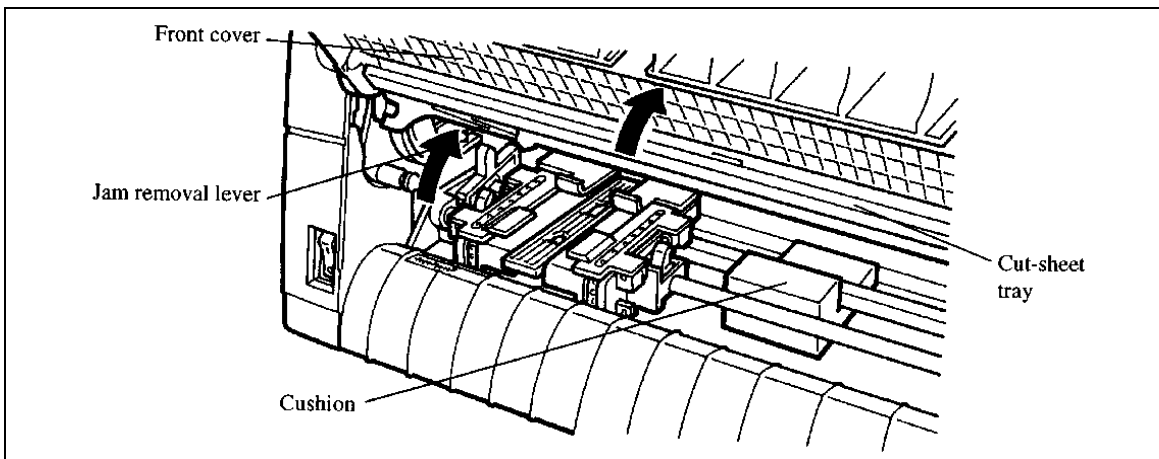

Figure 3-34. Remove the Cushion and Lock Jam Removal Lever.

(6) Insert the paper guide, at an angle, into the left and right guide grooves of the back cover and slide it back into place (figure 3-35).
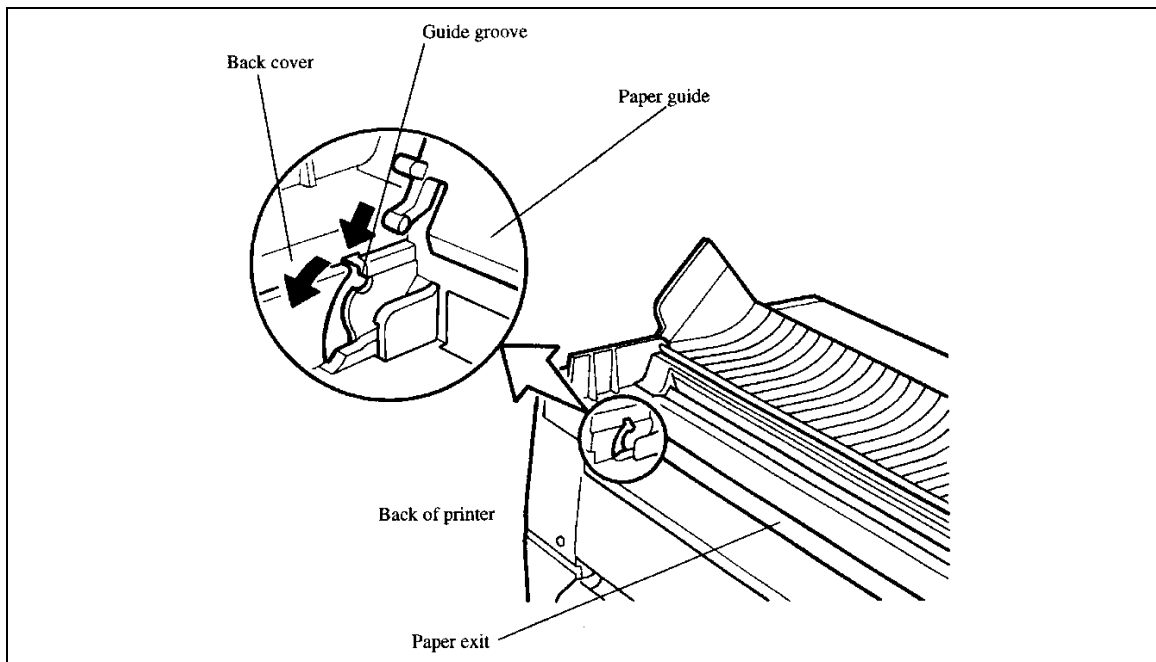

Figure 3-35. Insert the Paper Guide.

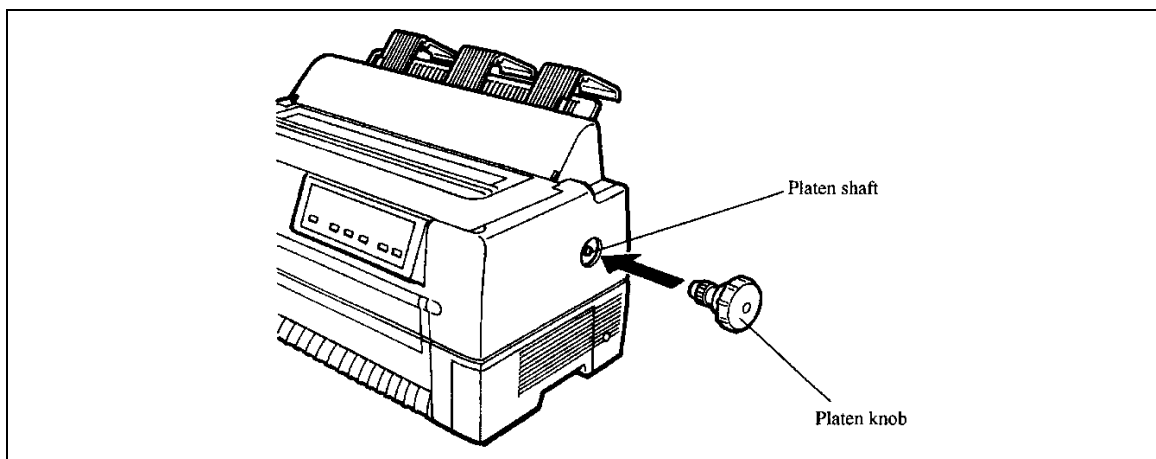(7) Insert the platen knob, aligning it with the gear teeth, as shown in figure 3-36.

Figure 3-36. Insert the Platen Knob.

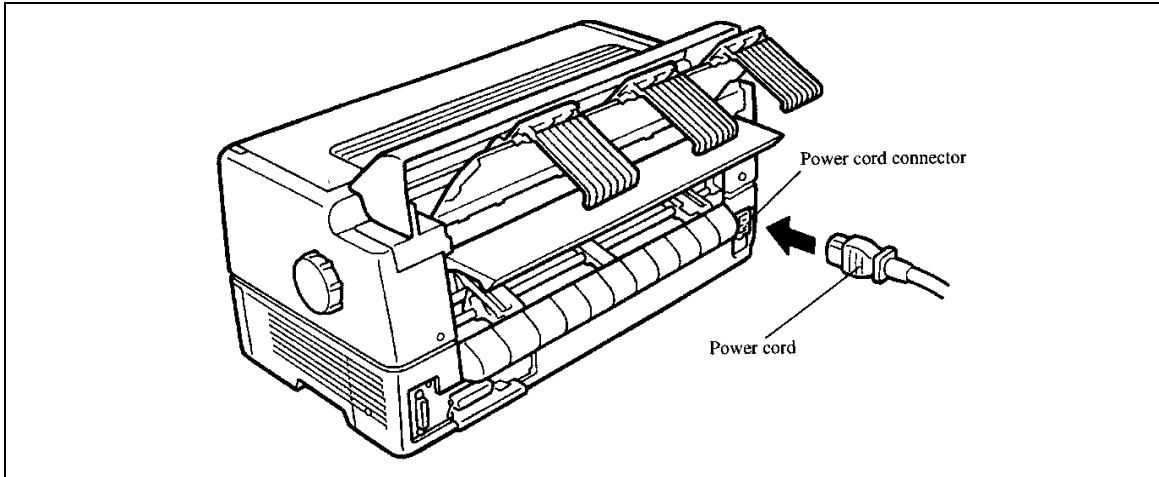(8) Connect the power cord, as follows, refer to figure 3-37.

Figure 3-37. Connect the Power Cord.

(a) Turn off the power.

(b) Connect the power cord to the connector at the back of the printer, right side.

(c) Plug the power cord into the outlet.

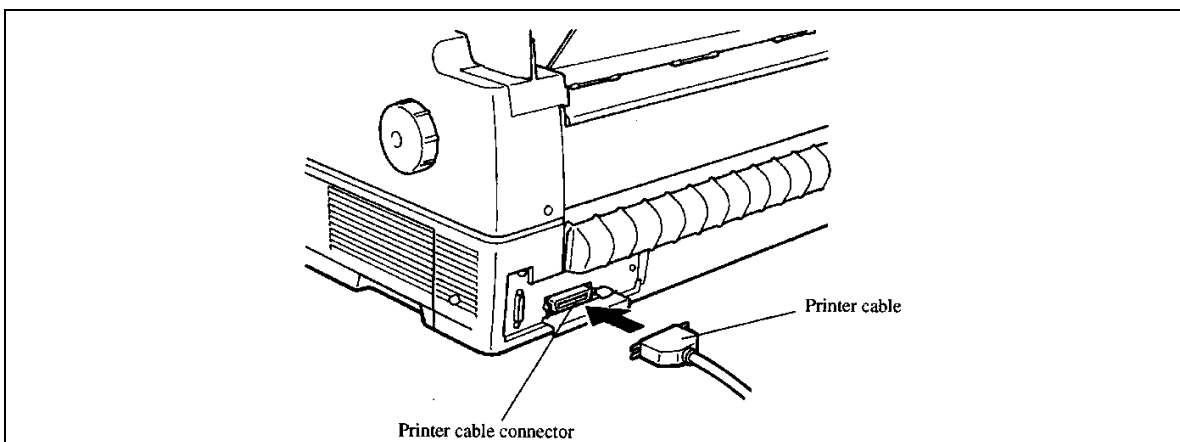(9) Connect the printer signal cable, as follows, refer to figure 3-38.

Figure 3-38. Connect the Printer Cable.

(a) Turn off printer and computer power.

(b) Connect the printer cable to the connector at the back of the printer, left side. Make sure the orientation is correct. Press the left and right lock pins down to secure the cable in place.

(c) Connect the cable to the computer. For more information, refer to the computer user's manual.

(10) Preparing and installing the ribbon cassette.

(a) Unpack the ribbon and remove the two protective tabs used in shipment, refer to figure 3-39.
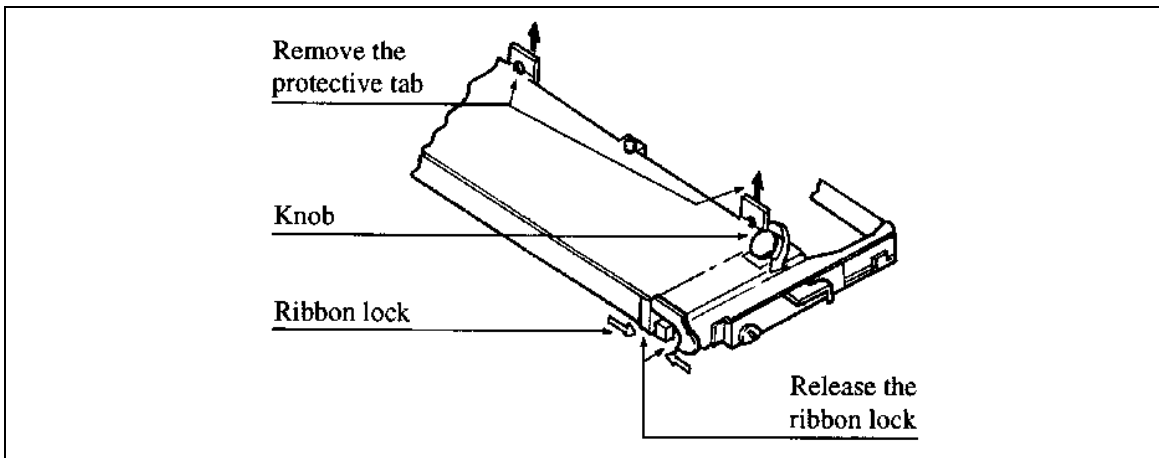

Figure 3-39. Remove the Ribbon Protection Tabs.

(b) Unlock the ribbon lock, turn the knob clockwise, and check the ribbon feed operation.

(c) Turn the knob clockwise to check that the ribbon moves smoothly.

(d) Turn the printer's power off.